STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

REBECCA A. HUMPHRIES
DIRECTOR

February 9, 2010

Mr. Jonathan C. Cherry, General Manager
Kennecott Eagle Minerals Company
504 Spruce Street
Ishpeming, Michigan 49849

Dear Mr. Cherry:

This letter is in reference to your Permit to Install application identified as No. 405-08 (State Registration Number N0934) for a nickel and copper mill and ore processing facility located at 4547 County Road 601, Humboldt Township, Marquette County, Michigan.

The 84-day public comment period ended on December 29, 2009, and a public hearing was held on December 1, 2009. Comments were received during the comment period and at the public hearing. After careful consideration of the issues and pursuant to the delegation of authority from the Director of the Michigan Department of Natural Resources and Environment (MDNRE), I have approved Permit to Install No. 405-08.

The Michigan Department of Natural Resources and Environment (MDNRE), Air Quality Division (AQD), along with the MDNRE's Office of Geological Survey, Water Bureau, and Land and Water Management Division has prepared the enclosed Response to Comments (RTC) Document, which provides our responses to comments received during the public comment period and at the public hearing.

This approval is based upon and subject to compliance with all administrative rules of the MDNRE and conditions stipulated in the enclosed supplement. Please review these conditions thoroughly so that you may take the actions necessary to ensure compliance with all of these conditions.

Please contact Mr. Mark C. Mitchell, AQD, at 517-373-7077 if you have any questions regarding this permit, or you may contact me.

Sincerely,

G. Vinson Hellwig, Chief
Air Quality Division
517-373-7069

Enclosures
cc/enc: Mr. Joseph Derocha, Supervisor, Humboldt Township
Ms. Connie Branam, Marquette County Clerk
Ms. Andrea Martin, Foth
Ms. Pamela Blakley, U.S. Environmental Protection Agency, Region 5
Ms. Laura Cossa, U.S. Environmental Protection Agency, Region 5
Mr. Brian Brady, MDNRE
Mr. Mark C. Mitchell, MDNRE

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR QUALITY DIVISION

PERMIT TO INSTALL APPLICATION

For authority to install, construct, reconstruct, relocate, or modify process, fuel-burning or refuse burning equipment and/or control equipment. Permits to install are required by administrative rules pursuant to Section 5505 of 1994 PA 451, as amended.

FOR DEQ USE
APPLICATION NUMBER
405-08

ase type or print clearly. The "Application Instructions" and "Information Required for an Administratively Complete Permit to Install pplication" are available on the Air Quality Division (AQD) Permit Web Page at http://www.deq.state.mi.us/aps. Please call the AQD at 517-373-7023 if you have not been contacted within 15 days of your application submittal.

RECEIVED
DEC 22 2008
AIR QUALITY DIV.

1. FACILITY CODES: State Registration Number (SRN) and North American Industry Classification System (NAICS)

SRN: N0934 NAICS: 212234

2. APPLICANT NAME: (Business License Name of Corporation, Partnership, Individual Owner, Government Agency)
Kennecott Eagle Minerals Company

3. APPLICANT ADDRESS: (Number and Street) | MAIL CODE:
504 Spruce Street

CITY: (City, Village or Township) | STATE: | ZIP CODE: | COUNTY:
Ishpeming | MI | 49849 | Marquette

4. EQUIPMENT OR PROCESS LOCATION: (Number and Street – if different than item 3)
4547 County Road 601

CITY: (City, Village or Township) | ZIP CODE: | COUNTY:
Humboldt Township | 49814 | Marquette

5. GENERAL NATURE OF BUSINESS:
Nickel and copper ore processing

6. EQUIPMENT OR PROCESS DESCRIPTION: (A Description MUST Be Provided Here. Include Emission Unit IDs. Attach additional sheets if necessary; number and date each page of the submittal.)

Description	Emission Unit ID
Rock Breaker	EUROCKBREAKER
Dump Hopper	EUDUMPHOPPER
Primary Crusher	EUPRIMCRUSHER
Front End Loader Travel	EUFELCOSA
Secondary Crusher	EU2NDCRUSHER
Secondary Crusher Screen	EU2NDSCREEN
Tertiary Crusher	EU3RDCRUSHER
Tertiary Crusher Screen	EU3RDSCREEN
Transfer Points	EUTRANSFERPTS
Fine Ore Storage	EUFINEORESTORAGE
Conveyor Load-Out	EUCONVLOAD
Auxiliary Load-Out	EUAUXLOAD
Front End Loader Travel	EUFELCONC
Fugitive Emissions Roadways	EUROADWAY

7. REASON FOR APPLICATION: (Check all that apply.)
- [X] INSTALLATION / CONSTRUCTION OF NEW EQUIPMENT OR PROCESS
- [X] RECONSTRUCTION / MODIFICATION / RELOCATION OF EXISTING EQUIPMENT OR PROCESS – DATE INSTALLED: Approximately 1954
- [ ] OTHER – DESCRIBE

8. IF THE EQUIPMENT OR PROCESS THAT WILL BE COVERED BY THIS PERMIT TO INSTALL (PTI) IS CURRENTLY COVERED BY ANY ACTIVE PERMITS, LIST THE PTI NUMBER(S): N/A

9. DOES THIS FACILITY HAVE AN EXISTING RENEWABLE OPERATING PERMIT (ROP)? [X] NOT APPLICABLE [ ] PENDING APPLICATION [ ] YES
PENDING APPLICATION OR ROP NUMBER:

10. AUTHORIZED EMPLOYEE: Jonathan C. Cherry | TITLE: General Manager | PHONE NUMBER: (Include Area Code) (906) 486-1257
SIGNATURE: [signature] | DATE: 12-15-08 | E-MAIL ADDRESS: cherryj@kennecott.com

11. CONTACT (If different than Authorized Employee. The person to contact with questions regarding this application): Vicky Peacey | PHONE NUMBER: (Include Area Code) (906) 486-1257
CONTACT AFFILIATION: KEMC Environmental Manager | E-MAIL ADDRESS: vpeacey@kennecott.com

12. IS THE CONTACT PERSON AUTHORIZED TO NEGOTIATE THE TERMS AND CONDITIONS OF THE PERMIT TO INSTALL? [X] YES [ ] NO

FOR DEQ USE ONLY - DO NOT WRITE BELOW

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: 9/11/09	
DATE PERMIT TO INSTALL APPROVED: 2/9/10	SIGNATURE: [signature]
DATE APPLICATION / PTI VOIDED:	SIGNATURE:
DATE APPLICATION DENIED:	SIGNATURE:

A PERMIT CERTIFICATE WILL BE ISSUED UPON APPROVAL OF A PERMIT TO INSTALL

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
AIR QUALITY DIVISION

February 9, 2010

PERMIT TO INSTALL
405-08

ISSUED TO
Kennecott Eagle Minerals Company

LOCATED AT
4547 County Road 601
Humboldt Township, Michigan

IN THE COUNTY OF
Marquette

STATE REGISTRATION NUMBER
N0934

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Natural Resources and Environment. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **September 11, 2009**	
DATE PERMIT TO INSTALL APPROVED: **February 9, 2010**	SIGNATURE: **G. Vinson Hellwig**
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDNRE	Michigan Department of Natural Resources and Environment	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Natural Resources and Environment, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5 The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Natural Resources and Environment. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUDUMPHOPPER	A 23 by 15 foot dump hopper into which the ore is placed by front end loaders. The hopper is equipped with water sprays. This is the first step in the ore processing. The hopper is located within the enclosed crushed ore storage area (COSA).		FGCOSA FGCONPLANT
EUGRIZZLYFEED	A vibratory feeder/grizzly system used to route ore into the primary crusher. This unit is equipped with water sprays. The grizzly is located within the enclosed crushed ore storage area (COSA).		FGCOSA FGCONPLANT
EUPRIMECRUSHER	A 407 ton per hour jaw crusher equipped with water sprays. This crusher used to reduce the ore to minus 100 mm in size. The crusher is located within the enclosed crushed ore storage area (COSA).		FGCOSA FGCONPLANT
EUROCKBREAKER	A Tamrock or equivalent rock breaker mounted adjacent to the primary crusher is used to reduce oversized rocks entering the system. The rock breaker is equipped with water sprays. The rock breaker is located within the enclosed crushed ore storage area (COSA).		FGCOSA FGCONPLANT
EUFELCOSA	A front end loader is used within the enclosed crushed ore storage area (COSA) to take the ore from storage piles and deposit it into the dump hopper (EUDUMPHOPPER).		FGCOSA FGCONPLANT
EU2NDFEEDCONVY	A covered conveyor used to transport the ore from the enclosed crushed ore storage area (COSA) to the Secondary Crusher Building.		FGTRANSFERCONVYS FGCONPLANT
EU2NDSCREEN	A double deck screen used to sort the ore into pieces above and below 12 mm in size. The oversized material is sent to the secondary crusher, while the remainder of the material is placed on the secondary screen discharge conveyor. The screen is located within the Secondary Crusher Building. All air exhausted from the Secondary Crusher Building is vented through a baghouse dust collector.		FGSECONDCRUSH FGCONPLANT

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU2NDCRUSHER	A cone crusher used to reduce the size of the ore. The unit is located within the Secondary Crusher Building. All air exhausted from the Secondary Crusher Building is vented through a baghouse dust collector.		FGSECONDCRUSH FGCONPLANT
EU2NDSCREENCONVY	A covered conveyor used to transport the ore from the secondary crusher screen (EU2NDSCREEN) to the transfer conveyor which then feeds into the enclosed transfer station.		FGTRANSFERCONVYS FGCONPLANT
EU3RDSCREEN	A single deck screen used to sort the ore into pieces above and below 12 mm in size. The oversized material is sent to the tertiary crusher, while the remainder of the material is placed on the tertiary screen discharge conveyor. The screen is located within the Secondary Crusher Building. All air exhausted from the Secondary Crusher Building is vented through a baghouse dust collector.		FGSECONDCRUSH FGCONPLANT
EU3RDCRUSHER	A cone crusher used to reduce the ore to minus 12 mm in size. The unit is located within the Secondary Crusher Building. All air exhausted from the Secondary Crusher Building is vented through a baghouse dust collector.		FGSECONDCRUSH FGCONPLANT
EU3RDSCREENCONVY	A covered conveyor used to transport the ore from the tertiary crusher screen (EU3RDSCREEN) to the transfer conveyor which then feeds into the enclosed transfer station.		FGTRANSFERCONVYS FGCONPLANT
EUMILLFEEDCONVY	A covered conveyor used to transport the ore from the enclosed transfer station into the Mill Building.		FGTRANSFERCONVYS FGCONPLANT
EUFINEORESTORAGE	Four 2000 tonne (metric ton) capacity fine ore storage bins. Only two bins will be operated at any one time. The bins are fed through a series of diverter gates and conveyors to drop points. The bins are located within the Mill Building. Particulate emissions from the bins and the drop points will be controlled by a baghouse dust collector.		FGCONPLANT
EUCONCENTCONVY	Two covered conveyors used to transport the copper and nickel bearing concentrate from the Mill Building to the Concentrate Loadout Building.		FGTRANSFERCONVYS FGCONPLANT

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUCONDROP	Copper and nickel concentrate dropped from EUCONCENTCONVY onto the floor of the Concentrate Loadout Building. This material will later be loaded into rail cars via front end loaders.		FGCONPLANT
EULOAD	Rail car loading of copper and nickel bearing concentrate using front end loaders. This activity will take place within the Concentrate Loadout Building.		FGCONPLANT
EUFELCON	Front end loader traffic within the Concentrate Loadout Building.		FGCONPLANT
EUTRANSFERPTS	Various conveyors, transfer points, and material handling activities located within the enclosed crushed ore storage area (COSA), the Secondary Crusher Building, the enclosed transfer station, the Mill Building, and the Concentrate Loadout Building.		FGCONPLANT
EUROADWAY	Fugitive emissions are produced by vehicle traffic entering and exiting the facility.		FGCONPLANT
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to: EUFINEORESTORAGE

DESCRIPTION:

Four 2000 tonne (metric ton) capacity fine ore storage bins. Only two bins will be operated at any one time. The bins are fed through a series of diverter gates and conveyors to drop points. The bins are located within the mill building. Particulate emissions from the bins and the drop points will be controlled by a baghouse dust collector.

Flexible Group ID: FGCONPLANT

POLLUTION CONTROL EQUIPMENT: A baghouse dust collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.0035 lbs per 1000 lbs of exhaust gases*	Test Protocol	EUFINEORESTORAGE	General Condition No. 13	R 336.1331, 40 CFR Part 60 Subpart LL
2. PM10	0.1 pph	Test Protocol	EUFINEORESTORAGE	General Condition No. 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
* Calculated on a dry gas basis					

3. Visible emissions from EUFINEORESTORAGE shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1331, R 336.1901, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUFINEORESTORAGE unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse dust collector is implemented and maintained. The MAP shall be submitted to the AQD District Supervisor a minimum of 120 days prior to commencement of operation of EUFINEORESTORAGE. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inaDNREuately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any storage bin, diverter gate, and/or drop point portion of EUFINEORESTORAGE unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

2. Each storage bin, diverter gate, and drop point portion of EUFINEORESTORAGE shall be located within an enclosed building. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall not operate EUFINEORESTORAGE unless a gauge, which measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds the maximum amount recommended by the manufacture, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2802, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

4. The permittee shall not operate more than two 2000 tonne (metric ton) capacity fine ore storage bins at any one time. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2802, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUFINEORESTORAGE, the permittee shall evaluate visible emissions from EUFINEORESTORAGE, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, R 336.1901, 40 CFR Part 60 Subparts A & LL)**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUFINEORESTORAGE, the permittee shall verify PM emission rates from EUFINEORESTORAGE, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 45 days following the last date of the test. **(R 336.1331, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, R 336.2803, R336.2804 40 CFR 52.21(c) & (d))**

2. The permittee shall keep the following information on a monthly basis for EUFINEORESTORAGE :
   a) PM10 emission calculations determining the monthly emission rate in tons per calendar month.
   b) PM10 emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.2803, R336.2804 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFINEORESTORAGE	14.0	125.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGSECONDCRUSH. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: EULOAD

DESCRIPTION:

Rail car loading of copper and nickel bearing concentrate using front end loaders. This activity will take place within the Concentrate Loadout Building.

Flexible Group ID: FGCONPLANT

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

1. Visible emissions from EULOAD shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.901, R 336.12803, R 336.2804, 40 CFR 52.21 (c) & (d), 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. All copper and nickel bearing concentrate loading via front end loaders shall take place within an enclosed building. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EULOAD, the permittee shall evaluate visible emissions from EULOAD, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, R 336.1901, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from EULOAD shall not be discharged to the ambient air at any time. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to EULOAD. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: EUTRANSFERPTS

DESCRIPTION:

Various conveyors, transfer points, and material handling activities located within the enclosed crushed ore storage area (COSA), the Secondary Crusher Building, the enclosed transfer station, the Mill Building, and the Concentrate Loadout Building.

Flexible Group ID: FGCONPLANT

POLLUTION CONTROL EQUIPMENT: Water Sprays

I. EMISSION LIMITS

1. Visible emissions from each conveyor portion of EUTRANSFERPTS shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d), 40 CFR Part 60 Subpart LL)**

2. Visible emissions from each transfer point portion of EUTRANSFERPTS shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d), 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. All conveyor, transfer point, and material handling operation portions of EUTRANSFERPTS shall be located within an enclosed building. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall not load material onto EUMILLFEEDCONVY unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUTRANSFERPTS, the permittee shall evaluate visible emissions from each conveyor and transfer point portion of EUTRANSFERPTS, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, R 336.1901, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to EUTRANSFERPTS. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOSA	All receiving and crushing activities located within the enclosed crushed ore storage area (COSA). Particulate emissions from these activities are controlled by watersprays.	EUDUMPHOPPER EUGRIZZLYFEED EUPRIMECRUSHER EUROCKBREAKER EUFELCOSA
FGTRANSFERCONVYS	Covered conveyors used to transport ore, copper bearing concentrate, and nickel bearing concentrate between the various buildings at the facility.	EU2NDFEEDCONVY EU2NDSCREENCONVY EU3RDSCREENCONVY EUMILLFEEDCONVY EUCONCENTCONVY
FGSECONDCRUSH	All crushing and screening activities located within the Secondary Crusher Building. Particulate emissions from these activities are controlled by a baghouse dust collector.	EU2NDSCREEN EU2NDCRUSHER EU3RDSCREEN EU3RDCRUSHER
FGCONPLANT	All permitted process equipment and activities associated with the copper and nickel ore concentration facility.	EUDUMPHOPPER EUGRIZZLYFEED EUPRIMECRUSHER EUROCKBREAKER EUFELCOSA EU2NDFEEDCONVY EU2NDSCREEN EU2NDCRUSHER EU2NDSCREENCONVY EU3RDSCREEN EU3RDCRUSHER EU3RDSCREENCONVY EUMILLFEEDCONVY EUFINEORESTORAGE EUCONCENTCONVY EUCONDROP EULOAD EUFELCON EUTRANSFERPTS EUROADWAY

The following conditions apply to: FGCOSA

DESCRIPTION:

All receiving and crushing activities located within the enclosed crushed ore storage area (COSA). Particulate emissions from these activities are controlled by watersprays.

Emission Units: EUDUMPHOPPER, EUGRIZZLYFEED, EUPRIMECRUSHER, EUROCKBREAKER, and EUFELCOSA

POLLUTION CONTROL EQUIPMENT: Watersprays

I. EMISSION LIMITS

1. Visible emissions from EUDUMPHOPPER shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, 40 CFR Part 60 Subpart LL)**

2. Visible emissions from EUGRIZZLYFEED shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, 40 CFR Part 60 Subpart LL)**

3. Visible emissions from EUPRIMECRUSHER shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, 40 CFR Part 60 Subpart LL)**

4. Visible emissions from EUROCKBREAKER shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

1. The permittee shall not process more than 407 tons of ore through EUDUMPHOPPER per hour. In addition, the permittee shall not process more than 809,023 tons of ore through EUDUMPHOPPER per 12-month rolling time period. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUDUMPHOPPER unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

2. The permittee shall not operate EUGRIZZLYFEED unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

3. The permittee shall not operate EUPRIMECRUSHER unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

4. The permittee shall not operate EUROCKBREAKER unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGCOSA, the permittee shall evaluate visible emissions from EUDUMPHOPPER, EUGRIZZLYFEED, EUPRIMECRUSHER, EUROCKBREAKER, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, R 336.1901, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record, in a method acceptable to the AQD District Supervisor, the ore feed rate to EUDUMPHOPPER on an hourly and 12-month rolling time period basis, as determined at the end of each calendar month. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from any portion of FGCOSA shall not be discharged to the ambient air at any time. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGCOSA. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FGTRANSFERCONVYS

DESCRIPTION:

Covered conveyors used to transport ore, copper bearing concentrate, and nickel bearing concentrate between the various buildings at the facility.

Emission Units: EU2NDFEEDCONVY, EU2NDSCREENCONVY, EU3RDSCREENCONVY, EUMILLFEEDCONVY, and EUCONCENTCONVY

POLLUTION CONTROL EQUIPMENT: Conveyor Covers

I. EMISSION LIMITS

1. Visible emissions from each conveyor portion of FGTRANSFERCONVYS shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each conveyor portion of FGTRANSFERCONVYS with a cover. **(R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGTRANSFERCONVYS, the permittee shall evaluate visible emissions from each conveyor portion of FGTRANSFERCONVYS, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, R 336.1901, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGTRANSFERCONVYS. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FGSECONDCRUSH

DESCRIPTION:

All crushing and screening activities located within the Secondary Crusher Building. Particulate emissions from these activities are controlled by a baghouse dust collector.

Emission Units: EU2NDSCREEN, EU2NDCRUSHER, EU3RDSCREEN, and EU3RDCRUSHER

POLLUTION CONTROL EQUIPMENT: A baghouse dust collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.009 lbs per 1000 lbs of exhaust gases*	Test Protocol	FGSECONDCRUSH	SC V. 2.	R 336.1331, 40 CFR Part 60 Subpart LL
2. PM10	0.5 pph	Test Protocol	FGSECONDCRUSH	SC V. 2.	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
* Calculated on a dry gas basis					

3. Visible emissions from FGSECONDCRUSH shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1303, R 336.1331, R 336.1901, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any portion of FGSECONDCRUSH unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse dust collector is implemented and maintained. The MAP shall be submitted to the AQD District Supervisor a minimum of 120 days prior to commencement of operation of FGSECONDCRUSH. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inaDNREuately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any screen and/or crusher portion of FGSECONDCRUSH unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

2. Each screen and crusher portion of FGSECONDCRUSH shall be located within an enclosed building. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall not operate FGSECONDCRUSH unless a gauge, which measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds the maximum amount recommended by the manufacture, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2802, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGSECONDCRUSH, the permittee shall evaluate visible emissions from FGSECONDCRUSH, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, R 336.1901, 40 CFR Part 60 Subparts A & LL)**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGSECONDCRUSH, the permittee shall verify PM emission rates from FGSECONDCRUSH, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 45 days following the last date of the test. **(R 336.1331, 40 CFR Part 60 Subpart LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, R 336.2803, R336.2804 40 CFR 52.21(c) & (d))**

2. The permittee shall keep the following information on a monthly basis for FGSECONDCRUSH:

a) PM10 emission calculations determining the monthly emission rate in tons per calendar month.

b) PM10 emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.2803, R336.2804 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV2NDCRUSHER	30.0	65.5	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGSECONDCRUSH. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FGCONPLANT

DESCRIPTION:

All permitted process equipment and activities associated with the copper and nickel ore concentration facility.

Emission Units: EUDUMPHOPPER, EUGRIZZLYFEED, EUPRIMECRUSHER, EUROCKBREAKER, EUFELCOSA, EU2NDFEEDCONVY, EU2NDSCREEN, EU2NDCRUSHER, EU2NDSCREENCONVY, EU3RDSCREEN, EU3RDCRUSHER, EU3RDSCREENCONVY, EUMILLFEEDCONVY, EUFINEORESTORAGE, EUCONCENTCONVY, EUCONDROP, EULOAD, EUFELCONC, EUTRANSFERPTS, and EUROADWAY

POLLUTION CONTROL EQUIPMENT: Two baghouse dust collectors, water sprays, and conveyor covers

I. EMISSION LIMITS

1. Visible emissions from all wheel loaders and all truck traffic shall not exceed five (5) percent opacity. Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). **(R 336.1301, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not maintain any outside storage piles of any material at the facility. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate any portion of FGCONPLANT unless the program for continuous fugitive emissions control for all plant roadways, the plant yard, and all material handling operations specified in Appendix A has been implemented and is maintained. **(R 336.1224, R 336.1225, R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 324.5524)**

3. The permittee shall not exceed a maximum equivalent of 16,181 50-ton ore trucks entering and leaving the facility for each 12-month rolling time period. **(R 336.1224, R 336.1225, R 336.1371, R 336.1901, Act 451 324.5521, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, R 336.1901, R 336.2803, R336.2804 40 CFR 52.21(c) & (d))**

2. The permittee shall keep a daily record of the type, size (weight) and number of ore transport trucks entering and leaving the facility. Each month, in a manner acceptable to the AQD District Supervisor, the permittee shall calculate an equivalent number of 50-ton ore transport trucks entering and leaving the facility based on that month's daily records. The permittee shall keep all records and calculations on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1371, R 336.1901, Act 451 324.5521, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGCONPLANT. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A

Report

Kennecott
Eagle Minerals

Humboldt Mill

Fugitive Dust Control Plan

Scope I.D.: 06W003

Kennecott Eagle Minerals Company
Ishpeming, Michigan

December 2008

Humboldt Mill
Fugitive Dust Control Plan

Project ID: 06W003

Prepared for

Kennecott Eagle Minerals Company

ISO 14001:2004 Registered System

Prepared by

Foth Infrastructure & Environment, LLC

December 2008

Foth Infrastructure & Environment, LLC 2008

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Fugitive Dust Control Plan

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Humboldt Mill
Fugitive Dust Control Plan
List of Abbreviations, Acronyms, and Symbols

COSA	Coarse Ore Storage Area
Foth	Foth Infrastructure & Environment, LLC
KEMC	Kennecott Eagle Minerals Company
MDNRE	Michigan Department of Natural Resources and Environment
PTI	Air Permit to Install
SIC	Standard Industrial Classification
tpd	tons per day

Introduction

Pursuant to R336.1371 of Part 3, Emission Limitations and Prohibitions – Particulate Matter, a Fugitive Dust Control Plan may be required for any fugitive dust source involved in processing, storing, transporting, and conveying bulk materials such as metal ores. The proposed Humboldt Mill Project will be classified as Standard Industrial Classification (SIC) 1021, and therefore, may be subject to these requirements. The major requirements for dust control under this regulation are the following:

- A written Fugitive Dust Control Program
- Maintenance of records consistent with activities to be implemented under the program.
- Identification of control technologies and methods that will be implemented as part of the program. Control methods must be selected for activities listed in R 336.1372.

This Fugitive Dust Control Plan has been prepared by Foth Infrastructure & Environment (Foth) on behalf of Kennecott Eagle Minerals Company (KEMC) as part of the Air Permit to Install Application (PTI) for proposed nickel/copper ore processing operations at the Humboldt Mill Project Site located in Humboldt Township, Marquette County, Michigan. This plan addresses information on best management practices and controls to minimize fugitive dust from the sources at this facility.

Potential sources of fugitive dust include:

- Haul truck activities;
- Ore storage and handling; and
- Concentrate storage, handling, and load-out.

Haul Truck Activities

Haul trucks bringing mined ore to the facility can be a fugitive emission source in several ways:

- Roadway travel,
- Unloading operations.

Roadway Travel

The mill access road entering the facility from County Road (CR) 601 will be used for haul trucks delivering ore, receiving deliverables, and general traffic. The haul truck traffic will be the most significant source of roadway fugitive emissions. The haul truck route into and out of the site is shown on Figure 1-1. Most of the haul truck route is on pavement, however, the last 1000 feet exiting the facility is unpaved.

Snow cover is anticipated approximately five months of the year keeping dust levels to insignificant levels. To minimize roadway dust during drier times of the year, the facility will implement control measures. During periods of ore delivery, roadway segments will be evaluated for the need to apply water. The evaluation will be based on the moistness of the roadway material, weather conditions expected (temperature, solar intensity, cloud cover, and wind conditions) and whether the roadway will be adequately moist during the upcoming operating period.

When needed, a water truck will distribute water evenly across the roadway to maintain the pavement in a moist state during operational periods when truck traffic may occur. The watering program will be in effect along the haul truck route shown on Figure 1-1. The goal of the watering program is to reduce fugitive dust emissions sufficiently to achieve an opacity of 5% or less for these sources. Additional control measures will include use of a road sweeper. Roadway areas on the haul route will be swept as needed.

Roadway watering and sweeping activities will be recorded. For unpaved portions, roadway aggregate will be installed and maintained to keep the silt content at a minimal level. The aggregate will be replaced on an as-needed basis. Record keeping procedures for the roadway watering and sweeping will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

Unloading Operations

Haul trucks will arrive at the site covered to reduce the potential for fugitive dust generation from the payload. The ore payload is expected to have a silt content routinely less than 1%. Haul trucks will back up to the COSA on the west side of the building and the roll-up door will be opened. Unloading will take place, then the door will be closed. The empty truck will be recovered prior to leaving the COSA.

Ore Storage and Handling

Ore delivered to the Humboldt Mill site will be transported to the COSA, an enclosed storage area with four walls and a roof to protect the ore piles from exposure to precipitation and reduce the impact of wind. Doors will be kept closed except when trucks are unloading the ore. It is anticipated the enclosure will result in 95% control of dust emissions from activities within the COSA. Individual emission controls will be applied to ore processing activities including water sprays on the dump hopper loading, rock breaking, primary crusher, and end transfer point. Water sprays are expected to reduce emissions from those activities by 90%.

Within the COSA, the front end loader will manage the ore piles and feed the dump hopper. This may generate emissions from the tires moving across the floor causing dispersion of loose material. To reduce emissions, a floor cleaning program will be implemented. As needed, the COSA floor will be swept. Floor sweeping will be performed with an industrial floor sweeper or broom. Debris will be collected and added to the ore pile. Records of the sweepings shall be kept. Record keeping procedures will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

The Secondary Crusher Building will be totally enclosed providing a 95% reduction of emissions from activities within this building. In addition, the secondary and tertiary crushers and conveyor transfer points will be ventilated to the secondary crusher building dust collector, which is expected to reduce captured emissions by at least 99.5%.

Operations in the mill and transfer station will be totally enclosed providing a 90% reduction of emissions from activities within these buildings. The mill building transfer points and fine ore bins will be ventilated to a baghouse, mill building dust collector No. 1. This control is expected to reduce captured emissions by at least 99.5%. The transfer station emissions and emissions from feeders leading from the fine ore bins to the grinding mill will be equipped with a water spray system. This control is expected to reduce those emissions by at least 90%.

Visible emissions from the COSA and secondary crusher building are expected to meet the MDNRE opacity requirements of 5% opacity. Maintenance procedures for control devices will be performed as described in Section 5 of this plan. Inspection and maintenance checklists (or similar) will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

Concentrate Storage, Handling, and Load-Out

All concentrate operations will be totally enclosed in the concentrate load-out building providing a 95% reduction of emissions from activities within this building. The concentrate material will be moist (8% moisture), which reduces handling emissions compared to a dry material.

To reduce potential emissions from the rail cars, concentrate loading will be performed within the building. Roll-up doors will be installed at the east and west ends of the building and will be open only to allow rail car entry or exit. Prior to a loaded rail car exiting the building, the wheels and body of the car will be inspected for material clinging to the exterior. If present, loose material will be brushed off.

During load-out, a front end loader will transfer concentrate from the floor to a rail car. Similar to the COSA operations, material present on the floor may be dispersed into the air from the vehicle tires. To reduce these emissions, a floor cleaning program will be implemented. As needed, the Concentrate Loadout Building floor will be swept. Floor sweeping will be performed with an industrial floor sweeper or broom. Debris will be collected and added to the concentrate piles. Records of the sweepings shall be kept. Record keeping procedures will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

Visible emissions from the concentrate load-out building are expected to meet the MDNRE opacity requirement of 5% opacity. Maintenance procedures for control devices in the building will be performed as described in Section 5 and inspection and maintenance checklists (or similar) will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

Routine Maintenance

To ensure proper operation of the baghouses, a manometer will be installed on each unit to measure pressure drop across the bags. The baghouses will be operated within the specifications recommended by the manufacturer. The manometers will be checked and recorded on a daily basis to ensure the control devices are operating within these specifications. A regular maintenance program for the baghouses will be implemented. Baghouse inspection and maintenance checklists (or similar) will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

Sufficient replacement parts and supplies will be kept on-site to replace equipment in the baghouses. These parts and supplies may include spare hoses and bags. This equipment will be available in the event a repair to the control equipment is necessary. Visual inspection of the fabric filters will take place at a minimum of once per month. Additional inspections and/or investigations will take place whenever an obvious rip, tear or hole is suspected or observed from a visual inspection. Routine replacement of bags and other equipment will take place on a schedule recommended by the manufacturer. Maintenance checklists (or similar) will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use. These will be used a guide to maintaining the baghouses. Sufficient replacement parts and supplies will be retained on-site for the air pollution and supporting equipment.

Conveyor belts will be equipped with belt scrapers to reduce carry back of material across idlers on the conveyor line. Carry back is that portion of the material that sticks to the belt instead of falling off at the head pulley. Belt scrapers will be checked and adjusted as necessary and any accumulations in conveyor belt enclosures will be removed periodically.

Recordkeeping

To ensure the Fugitive Dust Control Plan is effective, records will be maintained for the following activities:

- Records will be maintained on-site to document inspections of pressure drop across the baghouses. The records will document what action was taken if one of the baghouses is determined to be outside of operating specifications.

- Inspection records will be maintained on-site that document periodic maintenance inspections of the baghouses, including replacement of bags or other pertinent equipment that is associated with proper operation of the baghouse units.

- Records will be maintained to record on-site haul truck roadway watering, and approximate volumes of water used and roadway sweeping. If water is not applied or sweeping performed due to precipitation, snow pack or freezing weather, this information should also be recorded on the form.

- Records will be kept showing sweeping performed in the COSA and concentrate load-out building.

All record keeping procedures will be developed prior to commencement of plant operations and submitted to the AQD District Supervisor for approval prior to use.

Figures